

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on December 22, 2009 has been entered.

Allowable Subject Matter

Claims 15, 17, 21-31, and 36-42 are allowed.

The prior art references are Grabenhorst et al (DE 19542942 A1), Bagley et al (US 4,329,526), and Cowfer et al (US 6,177,599 B1).

Regarding claim 15, Grabenhorst et al discloses a device for introducing gas into a fluidized bed comprising at least one gas inlet pipe located underneath and/or above the fluidized bed, wherein the gas inlet pipe has gas-swirling means at its mouth (see Abstract; specification; and figure 1).

The prior art reference does not disclose or suggest a device wherein the gas-swirling means comprise at least one bead.

Claims 17, 21, and 22 depend on claim 15.

Regarding claim 23, Bagley et al discloses that it is known to have a device wherein the gas comprises ethane, oxygen and/or hydrogen chloride and a fluidized reactor bed comprising holes in a plate or plates may be equipped with caps, bubble caps, risers and tuyer or distributors, ball-check valves (see column 1, line 18 through column 2, line 32) and a process for the production of chlorinated hydrocarbon with a fluidized bed reactor comprising a device for introducing gas, the method comprising: introducing hydrocarbon, oxygen and/or hydrogen chloride into a fluidized bed comprising a catalyst, wherein the device comprises at least one gas inlet pipe located underneath and/or above the fluidized bed (see Abstract; figures 1-2; column 1, lines 18-35; and column 2, lines 26-30).

Grabenhorst et al discloses a device for introducing gas into a fluidized bed (see Abstract) comprising: at least one gas inlet pipe located underneath and/or above the fluidized bed, wherein the gas inlet pipe has gas-swirling means at its mouth (see Abstract and figure 1).

Cowfer et al discloses the oxychlorination of ethylene to 1,2-dichloroethane and ethylene, oxygen, and HCl are introduced into a fluidized bed (see column 5, lines 46-59).

The prior art references do not disclose or suggest the gas-swirling means comprises at least one bead.

Claims 24-30 depend on claim 23.

Regarding claim 31, Grabenhorst et al discloses a device for introducing gas into a fluidized bed comprising at least one gas inlet pipe located underneath and/or above

the fluidized bed, wherein the gas inlet pipe has gas-swirling means at its mouth (see Abstract; specification; and figure 1).

The prior art reference does not disclose or suggest a device wherein the gas-swirling means comprise at least one screen, at least one turbulence grid and/or at least one perforated diaphragm.

Claims 36 and 37 depend on claim 31.

Regarding claim 38, Bagley et al discloses that it is known to have a device wherein the gas comprises ethane, oxygen and/or hydrogen chloride and a fluidized reactor bed comprising holes in a plate or plates may be equipped with caps, bubble caps, risers and tuyer or distributors, ball-check valves (see column 1, line 18 through column 2, line 32) and a process for the production of chlorinated hydrocarbon with a fluidized bed reactor comprising a device for introducing gas, the method comprising: introducing hydrocarbon, oxygen and/or hydrogen chloride into a fluidized bed comprising a catalyst, wherein the device comprises at least one gas inlet pipe located underneath and/or above the fluidized bed (see Abstract; figures 1-2; column 1, lines 18-35; and column 2, lines 26-30).

Grabenhorst et al discloses a device for introducing gas into a fluidized bed (see Abstract) comprising: at least one gas inlet pipe located underneath and/or above the fluidized bed, wherein the gas inlet pipe has gas-swirling means at its mouth (see Abstract and figure 1).

Cowfer et al discloses the oxychlorination of ethylene to 1,2-dichloroethane and ethylene, oxygen, and HCL are introduced into a fluidized bed (see column 5, lines 46-59).

The prior art reference does not disclose or suggest a device wherein the gas-swirling means comprise at least one screen, at least one turbulence grid and/or at least one perforated diaphragm.

Claims 39-42 depend on claim 38.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Kiselev et al (US 6,227,524 B1) and Kiselev (US 4,838,906).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATASHA YOUNG whose telephone number is 571-270-3163. The examiner can normally be reached on Mon-Thurs 7:30 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. Y./
Examiner, Art Unit 1797

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797